

## Remarks

This is intended as a full and complete response to the Final Office Action dated April 27, 2007, having a shortened statutory period for response set to expire on July 27, 2007. Please reconsider the claims pending in the application for the reasons discussed below.

Claims 1-25 remain pending in the application and are shown above. Claims 1-25 stand rejected by the Examiner. Reconsideration of the rejected claims is requested for reasons presented below.

Claims 1-25 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication 2004/0026255 A1 to *Kovarsky et al.* Applicants respectfully traverse the rejection.

Attached herewith are declarations of Michael X. Yang and Nicolay Y. Kovarsky, the inventors of *Kovarsky et al.* and two of the inventors for the present invention, establishing that the relevant subject matter of *Kovarsky et al.* has the same inventive entity as the pending claims. As may be seen from the declarations, *Kovarsky et al.*, was invented by Dmitry Lubomirsky, Anzhong Chang, Yezdi N. Dordi, Michael X. Yang, and Nicolay Y. Kovarsky. The present claims were invented by Michael X. Yang, Dmitry Lubomirsky, Yezdi N. Dordi, Saravjeet Singh, Sheshraj L. Tulshibagwale, and Nicolay Y. Kovarsky. As well known to the Examiner, each claim in a patent application may have a different inventor (see M.P.E.P. § 2137.01, "A coinventor need not make a contribution to every claim of a patent. A contribution to one claim is enough"). Hence, it is not surprising that the inventors listed on *Kovarsky et al.* are different from the inventors of the present invention.

Claims 1-9, 11-19, and 21-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,251,251 B1 to *Uzoh et al.* in view of U.S. Patent No. 6,251,255 to *Copping et al.* Applicants respectfully traverse the rejection.

*Uzoh et al.* and *Copping et al.* do not teach, show, suggest, or otherwise render obvious a membrane support having an ionic membrane comprising a poly tetrafluoroethylene based ionomer (as recited in claims 1, 18) or a membrane support having a cationic membrane comprising a fluorized polymer matrix coupled therewith

(as recited in claim 11) as asserted by the Examiner. *Uzoh et al.* discloses a consumable anode that generates particles. To prevent the particles from reaching the cathode, an anode filter is used. *Copping et al.*, on the other hand, discloses an ionic membrane separating an anode and a cathode in a replenishing tank while the plating tank containing the anode and substrate are not separated by an ionic membrane. One of ordinary skill in the art when confronted by *Uzoh et al.* and *Copping et al.* would not place the ionic membrane between the anode and the substrate because neither *Uzoh et al.* nor *Copping et al.* teach, show, or suggest such a placement. It is respectfully asserted that *Uzoh et al.* and *Copping et al.* may be combined only with the use of hindsight. Therefore, *Uzoh et al.* and *Copping et al.*, alone or in combination, do not teach, show, suggest, or otherwise render obvious a membrane support having an ionic membrane comprising a poly tetrafluoroethylene based ionomer (as recited in claims 1, 18) or a membrane support having a cationic membrane comprising a fluorized polymer matrix coupled therewith (as recited in claim 11), and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,251,251 B1 to *Uzoh et al.* in view of U.S. Patent No. 6,251,255 to *Copping et al.* and further in view of U.S. Patent Application Publication 2002/0189950 A1 to *Genders et al.* and Applicant's admitted prior art. Applicants respectfully traverse the rejection.

*Uzoh et al.*, *Copping et al.*, *Genders et al.*, and Applicants' admitted prior art do not teach, show, suggest, or otherwise render obvious a membrane support having an ionic membrane comprising a polydivinylbenzol matrix coupled therewith as asserted by the Examiner because *Uzoh et al.* and *Copping et al.* may be combined only with the benefit of hindsight as discussed above. *Uzoh et al.* discloses electroplating apparatus and methods while *Genders et al.* discloses electrodialysis apparatus and methods for recovery of metal salts (see paragraph [0003]). *Uzoh et al.* and *Genders et al.* discuss unrelated technologies. It is respectfully asserted that one of ordinary skill in the art, when confronted with the electroplating method of *Uzoh et al.* would not look to the electrodialysis teaching of *Genders et al.* absent hindsight. Therefore, *Uzoh et al.*, *Copping et al.*, *Genders et al.*, and Applicants' admitted prior art, alone or in

combination, do not teach, show, suggest, or otherwise render obvious a membrane support having an ionic membrane comprising a polydivinylbenzol matrix coupled therewith, as recited in claim 10. Withdrawal of the rejection is respectfully requested.

Claim 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,251,251 B1 to *Uzoh et al.* in view of U.S. Patent No. 6,251,255 to *Copping et al.* and further in view of U.S. Patent Application Publication 2002/0011415 A1 to *Hey et al.* Applicants respectfully traverse the rejection.

Claim 20 depends from claim 18, which is believed to be allowable. *Hey et al.* also does not show a membrane support having an ionic membrane comprising a poly tetrafluoroethylene based ionomer. Because claim 18 is believed to be allowable, it is respectfully asserted that claim 20 should be allowable as well. Withdrawal of the rejection is respectfully requested.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

Having addressed all issues set out in the Final Office Action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



---

Keith M. Tackett  
Registration No. 32,008  
PATTERSON & SHERIDAN, L.L.P.  
3040 Post Oak Blvd., Suite 1500  
Houston, TX 77056  
Telephone: (713) 623-4844  
Facsimile: (713) 623-4846  
Attorney for Applicants